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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)

TEEMU TANNER)

Application No.: 10/500,738)

Filed: July 6, 2004)

For: METHOD FOR BLEACHING)
MECHANICALLY DEFIBERED PULP)

Group Art Unit: 1731

Examiner: Unassigned

Confirmation No.: 6685

**REQUEST FOR REPUBLICATION
TO CORRECT PATENT OFFICE ERROR
PURSUANT TO 37 C.F.R. § 1.221(b)**

Commissioner for Patents
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Sir:

The above-identified Patent Application was published as No. 20050098279 on
May 12, 2005 (copy attached).

An error appears in Claim 5 as published. The following words should be deleted:
"any of the previous claims".

Please republish so that Claim 5 correctly appears.

Respectfully submitted,

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US PATENT & TRADEMARK OFFICE

PATENT APPLICATION FULL TEXT AND IMAGE DATABASE



(1 of 1)

United States Patent Application**20050098279****Kind Code****A1****Tanner, Teemu****May 12, 2005****Method for bleaching mechanically defibered pulp**

Abstract

The invention relates to a method for bleaching mechanically defibered pulp with peroxide in alkaline conditions and for washing the bleached pulp and recovering chemicals from the spent liquor the bleaching step by concentrating and combusting the spent liquor and subsequently dissolving the ash thus formed into water. According to the invention, the alkaline conditions of the bleaching step are obtained by adding sodium aluminate to the pulp to be bleached, at least a part of the added sodium aluminate being the ash dissolved in water.

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Foreign Application Data

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Claims

1. A method for bleaching (3) mechanically (2) defibered pulp (14) with peroxide (29) in alkaline conditions and for washing (4) the bleached pulp (15) and recovering chemicals from the spent liquor (16) of the bleaching step by concentrating (5, 8) and combusting (6) the spent liquor and dissolving (7) the ash (31) thus formed into water (13), wherein the alkaline conditions in the bleaching step (3) are obtained by adding alkali metal aluminate (12) to the pulp (14) to be bleached, which alkali metal aluminate at least to a part is said ash (28) dissolved in water.
2. The method of claim 1, wherein said alkali metal aluminate is sodium aluminate.
3. The method of claim 2, wherein said alkaline conditions in the bleaching step (3) are partially obtained by impregnating (1) said wood chips (11) to be mechanically defibered with an aqueous solution (12, 28) of sodium aluminate and passing the pulp (14) after the mechanical defibering step (2) to said bleaching step (3).
4. The method of claim 3, wherein the impregnation step (1) of said wood chips (11) to be mechanically defibered at least partially utilizes the ash (28) dissolved in water.
5. The method of ~~any of the previous claims~~, claim 1, wherein the bleaching step (3) is carried out at a temperature of about 20-150.degree.C.
6. The method of claim 1, wherein the pH of said bleaching step (3) is adjusted to value of about 9.5-12.5.
7. The method of claim 1, wherein the concentrated (5, 8) spent liquor (21) of said bleaching step (3) is combusted (6) at a temperature of 500-1100.degree. C.
8. The method of claim 1, wherein the spent liquor (16) received from the bleaching step (3) is concentrated (5) to a solids content of at least about 30%.
9. The method of claim 8, wherein the concentrated spent liquor (17) of said bleaching step (3) is further concentrated with hot flue gases (20) discharged from the combusting step (6) of said spent liquor.
10. The method of claim 2, wherein the bleaching step (3) is carried out at a temperature of about 20-150.degree. C.
11. The method of claim 3, wherein the bleaching step (3) is carried out at a temperature of about 20-150.degree. C.
12. The method of claim 1, wherein the bleaching step (3) is carried out at a temperature of about 50-100.degree. C.
13. The method of claim 2, wherein the bleaching step (3) is carried out at a temperature of about 50-100.degree. C.